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ABSTRACT

Production of transparencies on an overhead projector can be very helpful in improving instruction. Techniques for producing transparencies either by hand or on a copy machine are covered visually in this handbook. Advantages of overhead projection are listed first; then the operation, cleaning, and maintenance of overhead projectors are covered. The remainder of the handbook consists of illustrations and simple, detailed instructions for producing transparencies. (Author/RH)

ED 067864

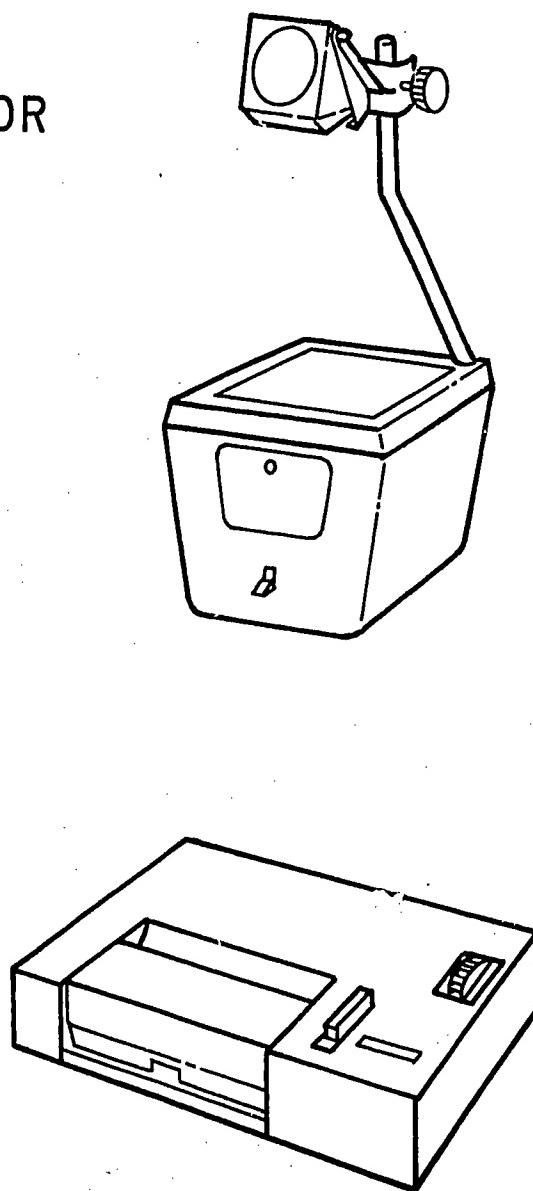
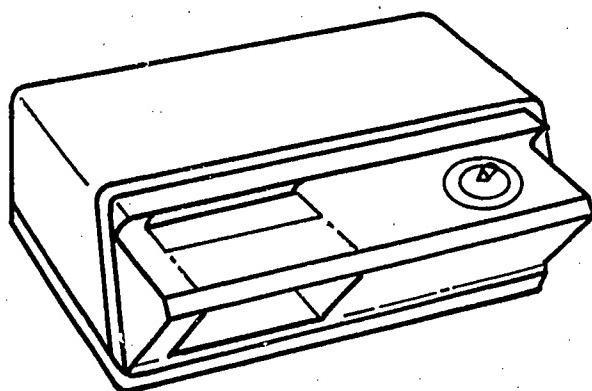
Career and Continuing Education  
Curriculum Office  
Los Angeles Unified School District  
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Los Angeles, California 90051

EXPERIMENTAL

## PRODUCING INSTRUCTIONAL MEDIA:

FILMED FROM BEST AVAILABLE COPY

### THE OVERHEAD PROJECTOR AND COPY MACHINES



DIVISION OF CAREER AND CONTINUING EDUCATION  
Los Angeles City Schools  
1972

ED 067864

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## PRODUCING INSTRUCTIONAL MEDIA: THE OVERHEAD PROJECTOR AND COPY MACHINES



LOS ANGELES CITY SCHOOLS  
DIVISION OF CAREER AND CONTINUING EDUCATION  
1972

**APPROVED:**

**ABRAM FRIEDMAN**  
Assistant Superintendent  
Division of Career and Continuing Education

## FOREWORD

It is hoped that Producing Instructional Media: The Copy Machine and Overhead Projector will assist career and continuing education teachers in the development of creative transparencies that will increase the effectiveness of instruction.

Projection of transparencies on an overhead projector can be very helpful in strengthening instruction. Techniques for producing transparencies either by hand or on a copy machine are covered visually in this Handbook. An overhead projector is one of the most simple types of audio-visual equipment to operate, and its utilization has been facilitated through the development of a light-weight classroom model and by the ease with which dry copy transparencies can be prepared. Other advantages of the overhead projector as an instructional tool are described elsewhere in this publication.

Should you have suggestions for the improvement of the Handbook or questions, please communicate with the Continuing Education Curriculum Office at 687-4708. Mr. John Sansam is the Instructional Media Specialist.

ABRAM FRIEDMAN  
Assistant Superintendent  
Division of Career and  
Continuing Education

## ACKNOWLEDGMENTS

With particular appreciation, the Division of Career and Continuing Education acknowledges the contributions of staff members who have prepared this Handbook. The material and illustrations initially were developed for an E. S. E. A. Title I workshop by Mr. Ron Kindig, Instructional Media Coordinator, West Valley Occupational Center, and by Mrs. Jeanne Lehr, Illustrator, Reading Task Force. The workshop was conducted under the leadership of Mr. Ralph Kennedy, Instructional Media Specialist, Mobile Instructional Media Service.

Additions to and revisions of the contents were subsequently made by Mr. Kennedy, while the illustrations excerpted from Instructional Media Equipment and Procedures (Publication No. SFP-2-7-70) were prepared by Mrs. Susie McSweeney, Illustrator, Instructional Media Center, San Fernando Senior High School. This edition was revised and edited by Mr. Kindig and illustrated by Mr. Alden Milmet, Illustrator, Instructional Media Resource Laboratory, West Valley Occupational Center.

Gratitude is also expressed to Mr. John Sansam, Specialist, Instructional Media, Division of Career and Continuing Education, for his suggestions and for coordination of the printing and distribution of the Handbook. It was reproduced by the Printing Department, West Valley Occupational Center, to which the staff also wishes to convey appreciation.

LOIS HOTCHKISS  
Chairman  
Continuing Education Curriculum  
Council

GEORGE KAWAMURA  
Coordinator  
Career and Continuing Curriculum

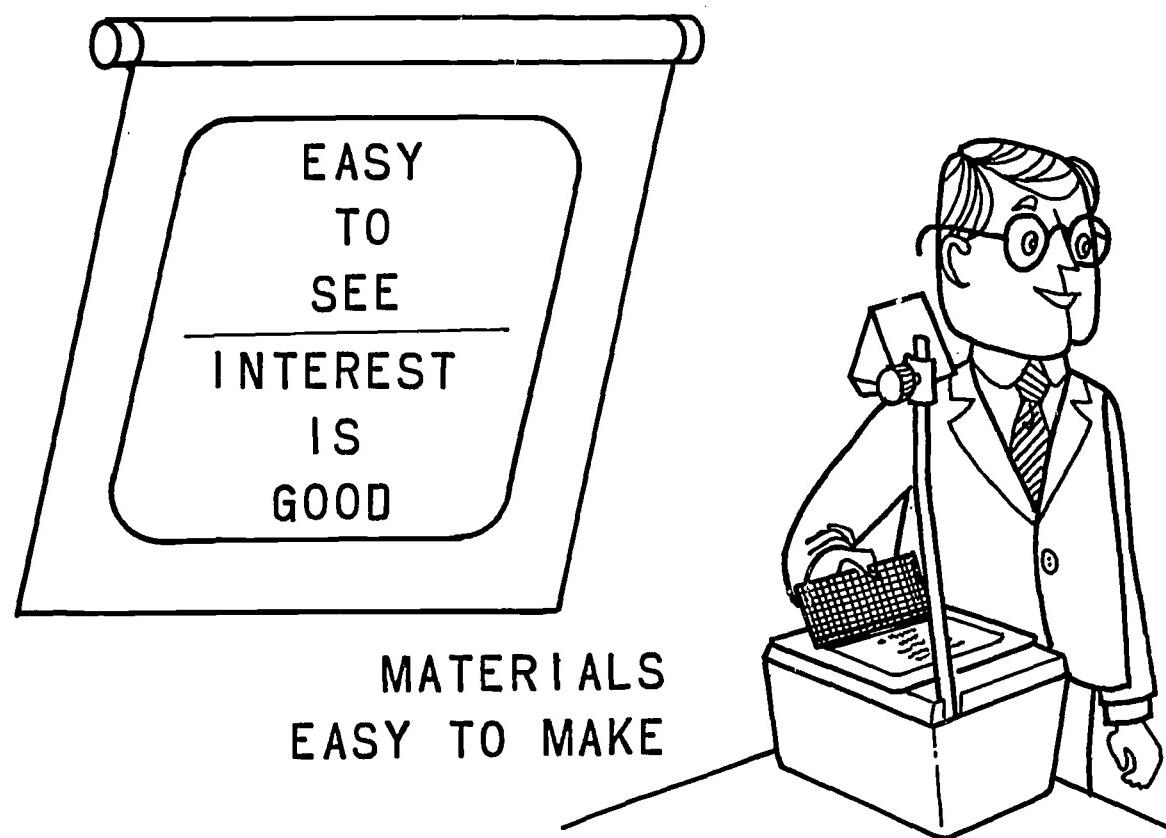
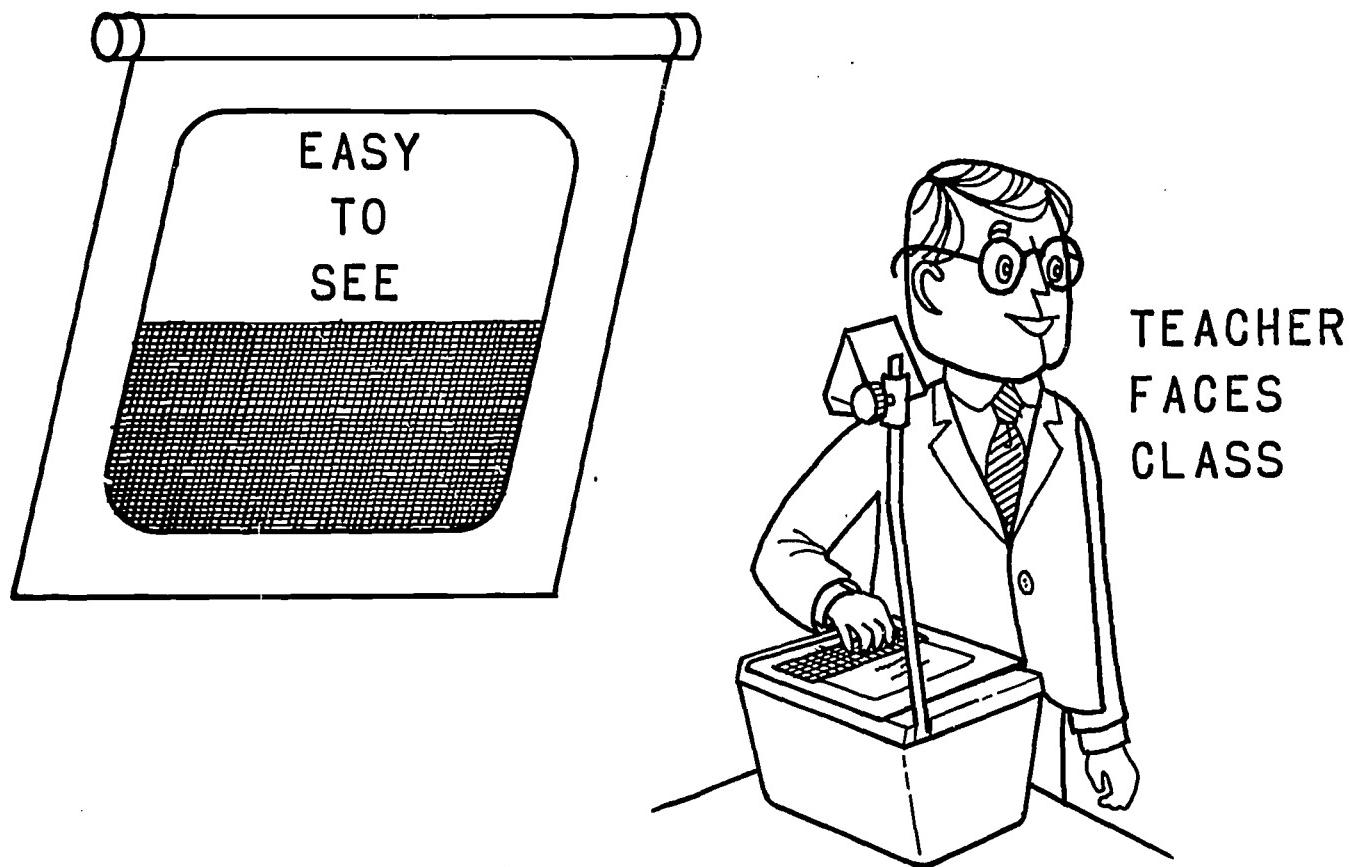
## CONTENTS

FOREWORD . . . . .	iii
ACKNOWLEDGMENTS . . . . .	iv
ADVANTAGES OF OVERHEAD PROJECTION . . . . .	1
THE OVERHEAD PROJECTOR . . . . .	2
HOW TO OPERATE THE OVERHEAD PROJECTOR . . . . .	3
SCREEN PLACEMENT . . . . .	4
CLEANING THE OVERHEAD PROJECTOR . . . . .	5
CHANGING LAMPS . . . . .	6
OVERHEAD TRANSPARENCY GUIDELINES . . . . .	7
PRODUCING ORIGINALS (MASTERS) . . . . .	8
MAKING A TRANSPARENCY . . . . .	9
MOUNTING TRANSPARENCIES . . . . .	10
ARRANGING OVERLAYS: USING DISCLOSURE MASKS . . . . .	11
SAMPLE BASE TRANSPARENCY . . . . .	12
SAMPLE OVERLAY . . . . .	13
MATERIALS FOR OVERHEAD PROJECTION . . . . .	14
CONSIDERATIONS FOR SELECTING OVERHEAD TRANSPARENCIES . .	15
USING THE THERMOFAX SECRETARY COPY MACHINE . . . . .	16
USING THE ADDO-FAX COPY MACHINE . . . . .	17
MAKING THERMAL SPIRIT MASTERS ON THE COPY MACHINE . . . .	18
MAKING A THERMAL SPIRIT MASTER . . . . .	19
MAKING A BUFF COPY . . . . .	20
LAMINATING . . . . .	21

## ADVANTAGES OF OVERHEAD PROJECTION

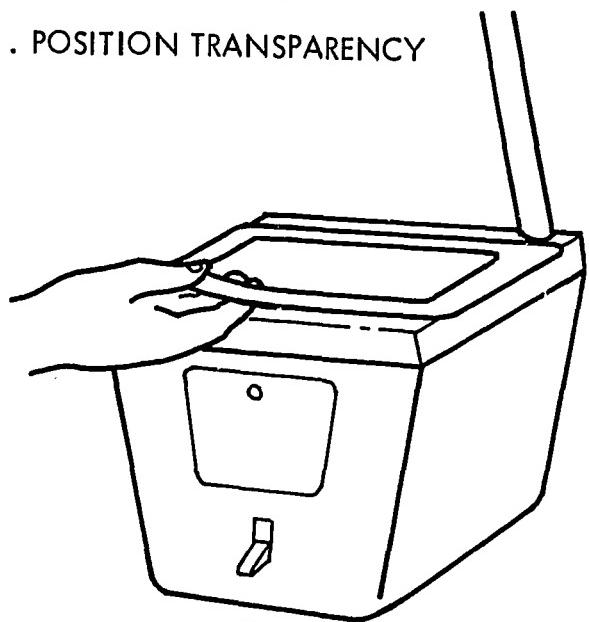
- It's easy and effective
- Materials are inexpensive and quickly prepared
- Current illustrations can be used (newspapers, etc.)
- Teacher and student can prepare and present material
- User faces the viewer for communication
- Image is bright and visible in a lighted room
- Revelation techniques control attention
- Overlays build concepts
- Color adds emphasis

## THE OVERHEAD PROJECTOR.

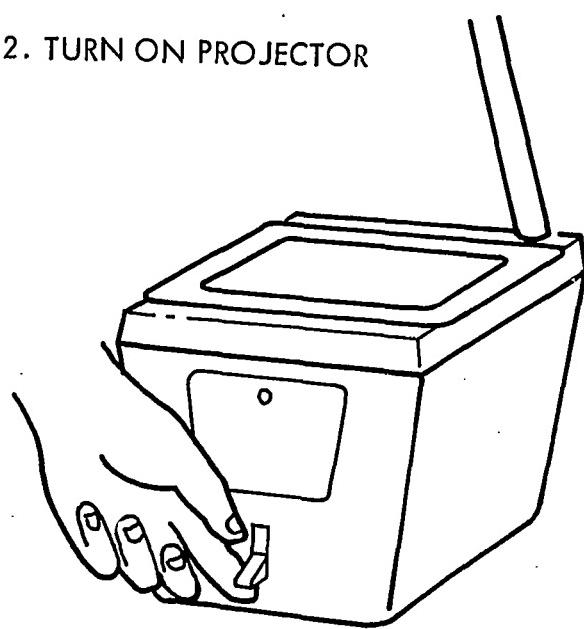


# HOW TO OPERATE THE OVERHEAD PROJECTOR

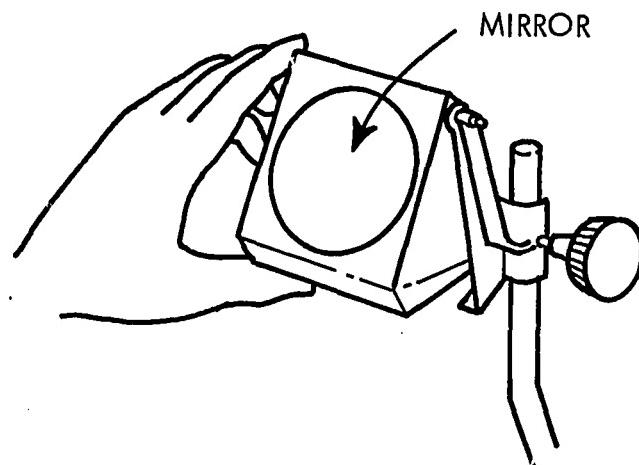
1. POSITION TRANSPARENCY



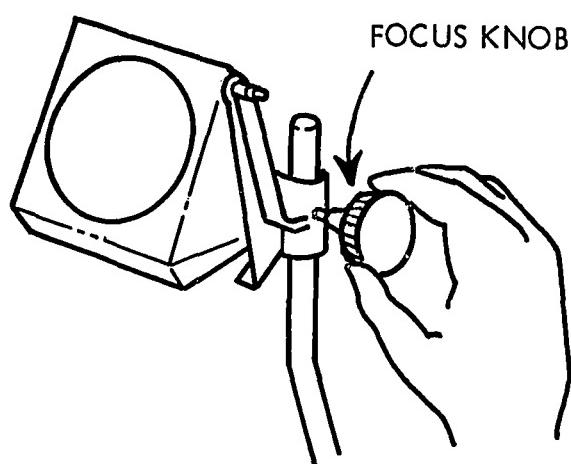
2. TURN ON PROJECTOR



3. ADJUST MIRROR



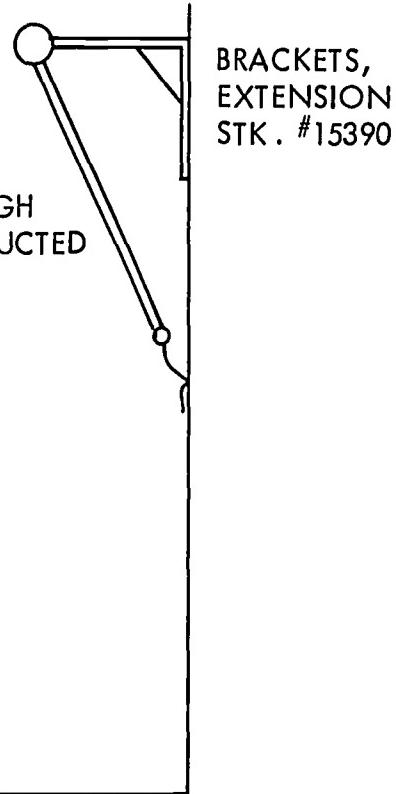
4. ADJUST FOCUS



## SCREEN PLACEMENT

1. TEACHER STANDING

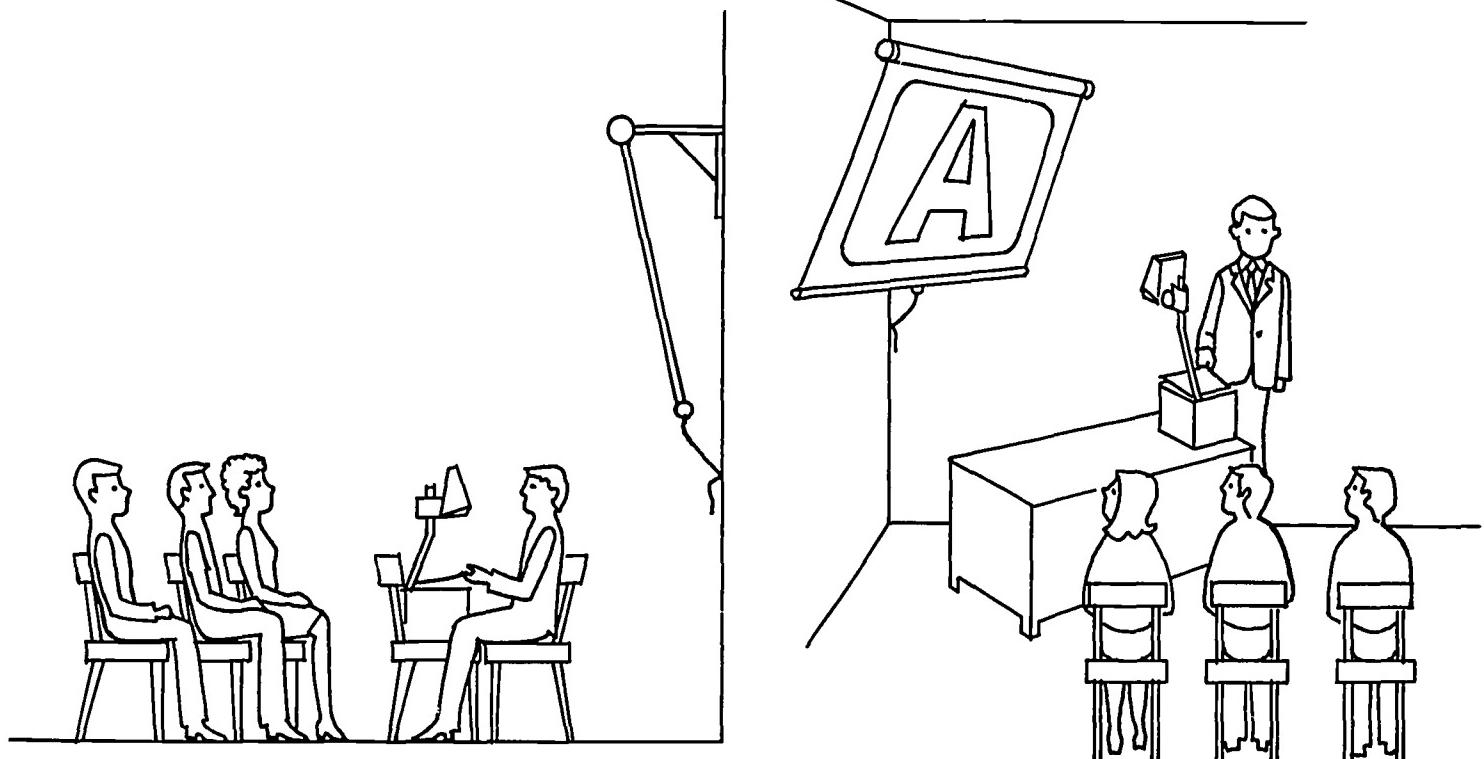
SCREEN HIGH ENOUGH  
TO ALLOW UNOBSTRUCTED  
VISION



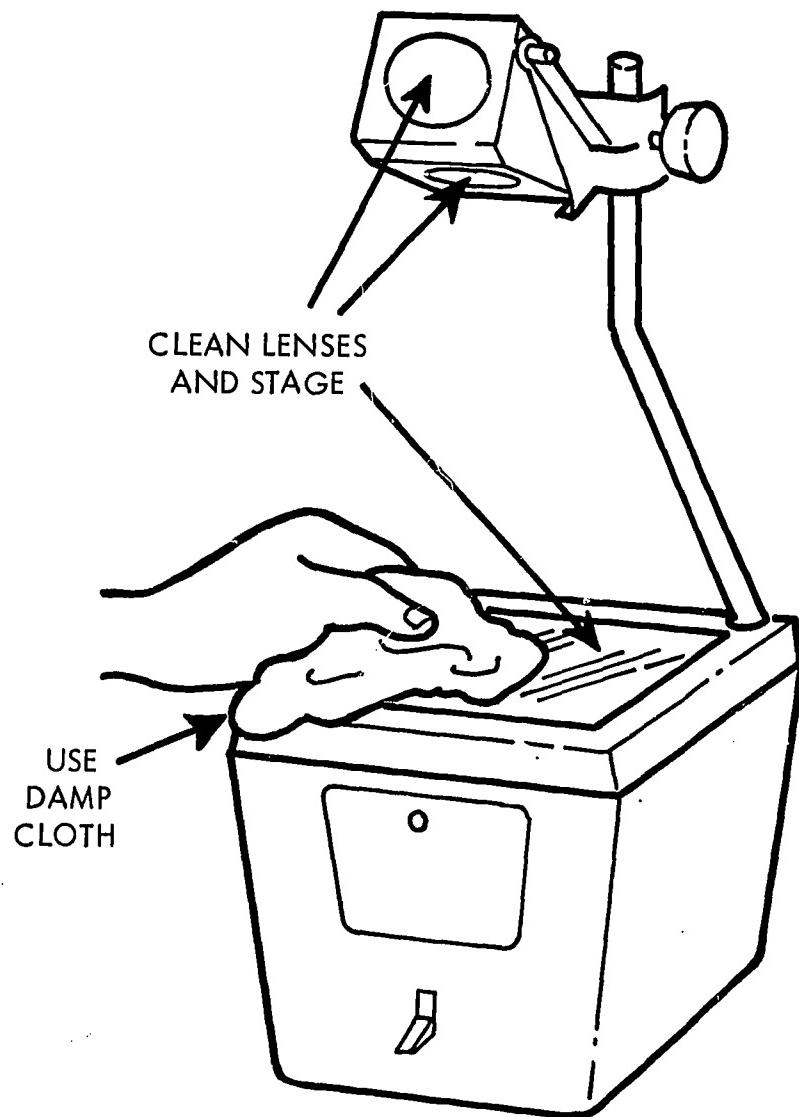
BRACKETS,  
EXTENSION  
STK. #15390

2. TEACHER SEATED

3. CORNER OF ROOM



## CLEANING

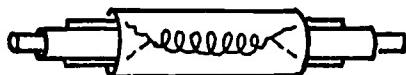


**CAUTION**

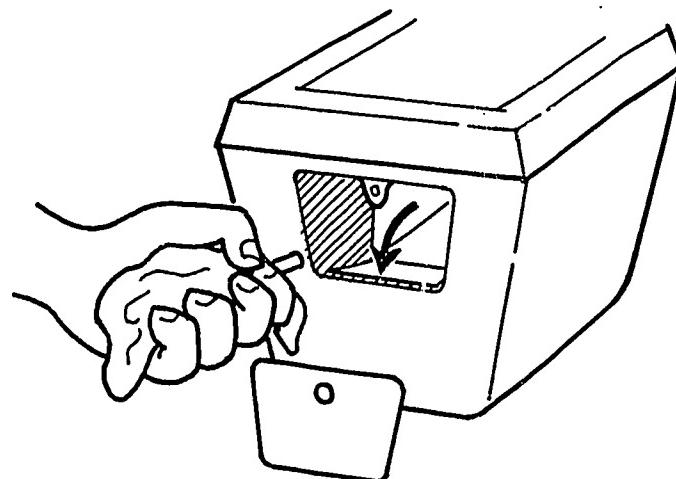
**DO NOT MOVE PROJECTOR IF IT IS HOT!**

## CHANGING LAMPS (Pull Out Plug!)

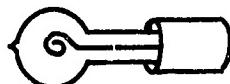
FOR THIS BULB



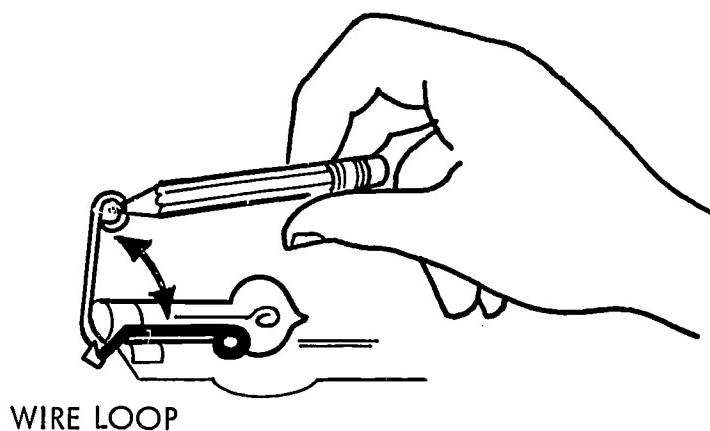
1. OPEN DOOR
2. PULL DOWN PANEL



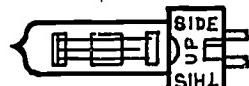
FOR THIS BULB



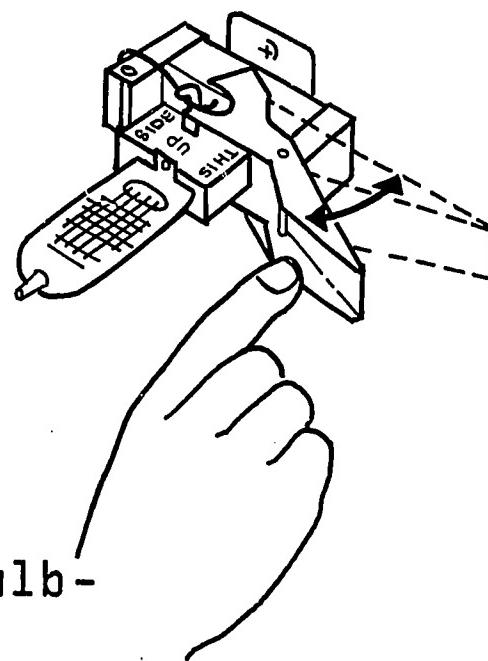
1. OPEN DOOR
2. LIFT UP WIRE LOOP



FOR THIS BULB



1. OPEN DOOR
2. PUSH METAL TAB



Check Your Projector Bulb-  
Order Replacements

## OVERHEAD TRANSPARENCY GUIDELINES

11

Horizontal format offers better viewing area

Lettering should be at least  
3/16" high

Inside edge of the transparency frame  
or mount

Material should not crowd borders

**PRODUCING ORIGINALS (MASTERS)  
FOR USE IN HEAT TRANSFER COPY MACHINES**

**THESE WILL WORK:**

PENCIL, INDIA INK, MIMEOGRAPH,  
PRINTED OR TYPED MATERIALS (BLACK),  
NEWSPAPERS, MAGAZINES.

**THESE WON'T WORK:**

DITTO, MOST BALL POINT PENS,  
FELT-TIP PENS.

**PRIMARY TYPE (6 letters per inch) IS BEST**

PICA TYPE IS SMALL

Elite type is very small

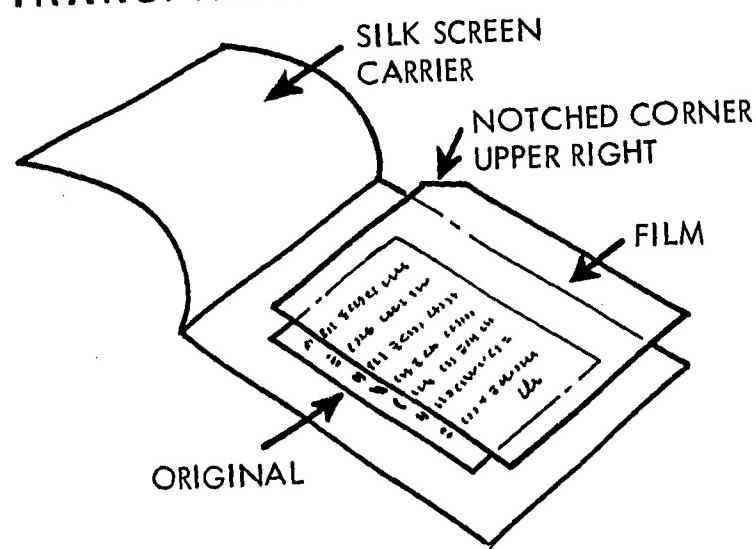
**USE A STENCIL  
OR**

**DOT YOURSELF**

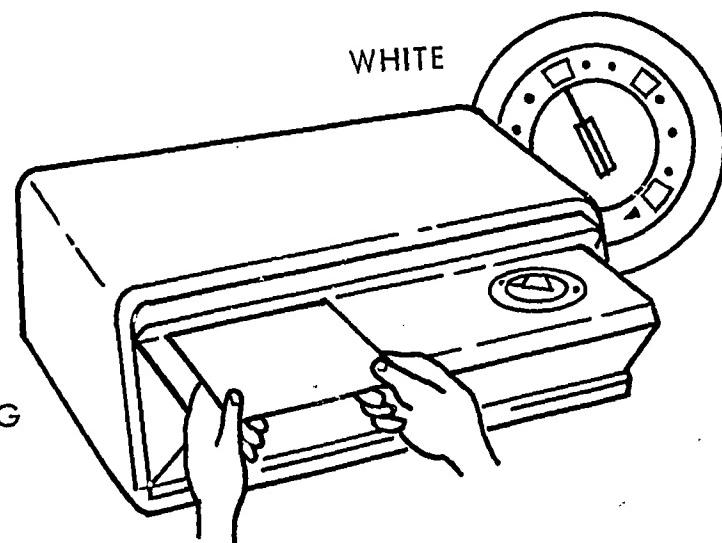
KEEP INSIDE LINES

## MAKING A TRANSPARENCY

1. PLACE ORIGINAL AND FILM  
IN CARRIER

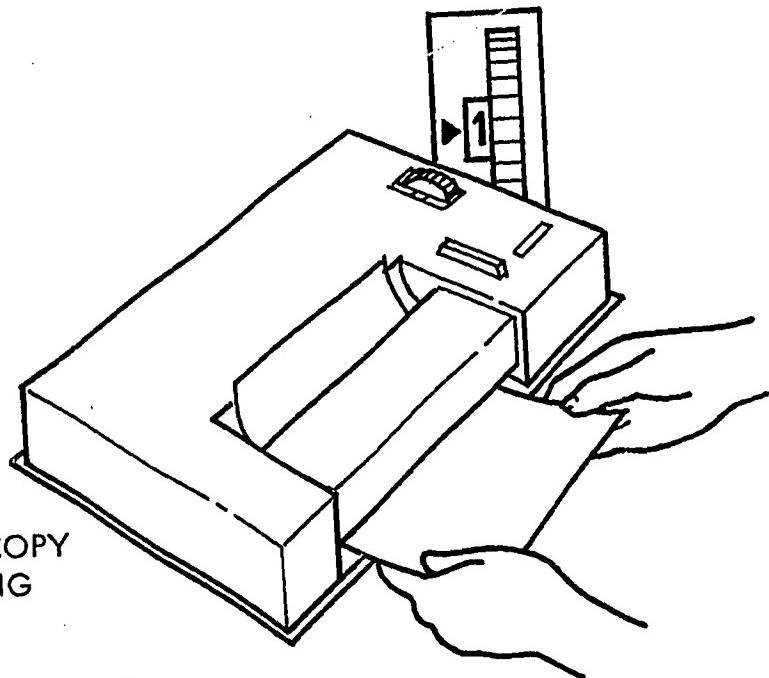


2. RUN THROUGH "SECRETARY"  
COPY MACHINE AT WHITE SETTING



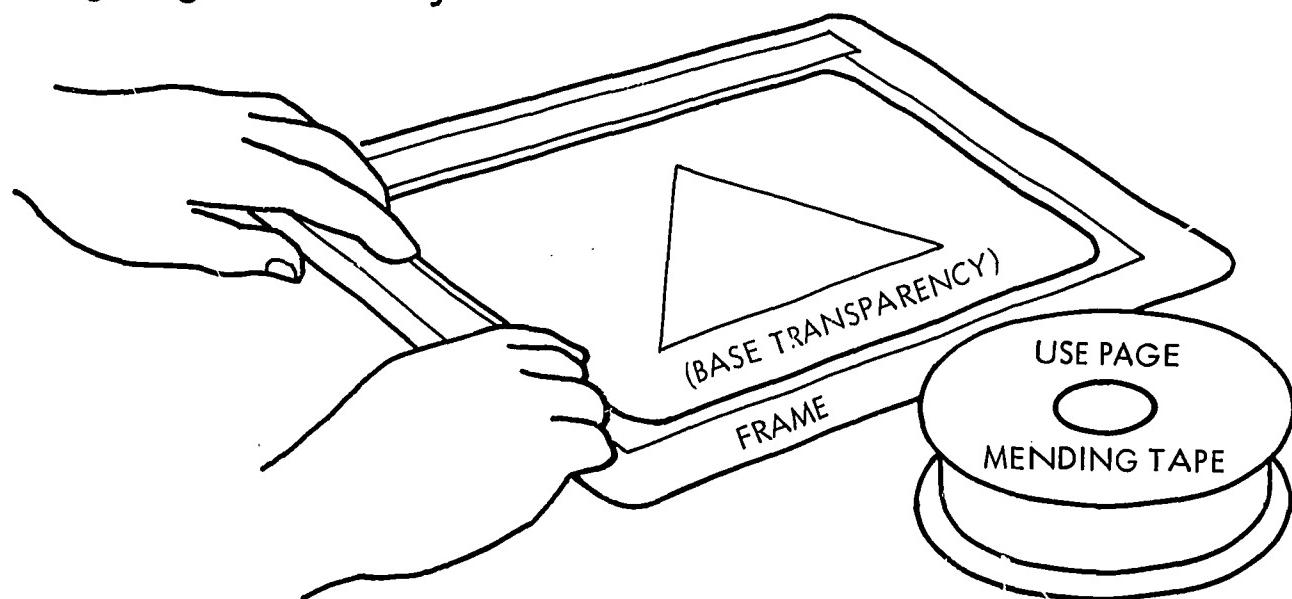
-OR-

2. RUN THROUGH "ADDO-FAX" COPY  
MACHINE AT NUMBER 1 SETTING



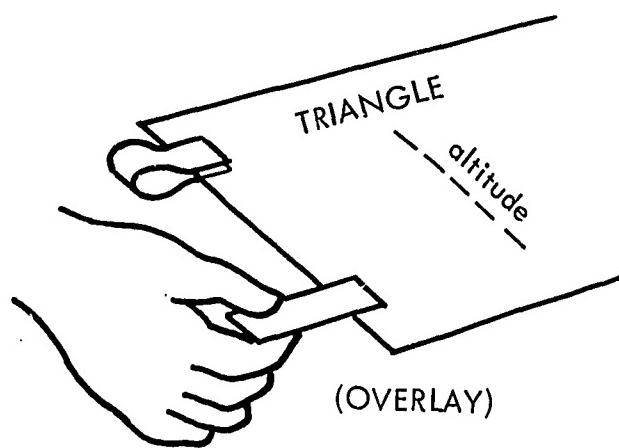
## MOUNTING TRANSPARENCIES

### Hinging Overlays

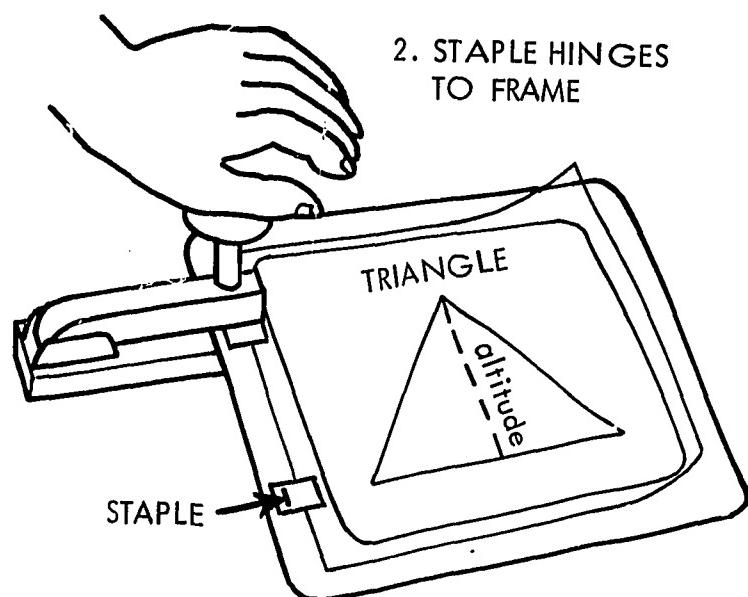


### Base Transparency

#### 1. ATTACH MASKING TAPE HINGES

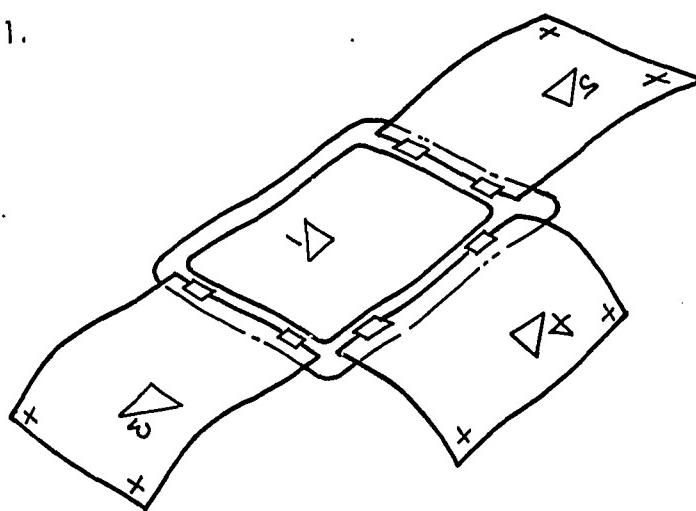


#### 2. STAPLE HINGES TO FRAME

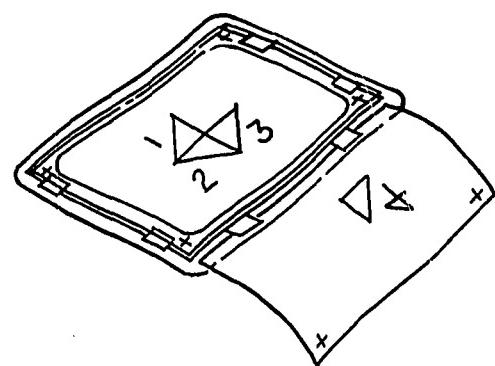


## ARRANGING OVERLAYS

1.

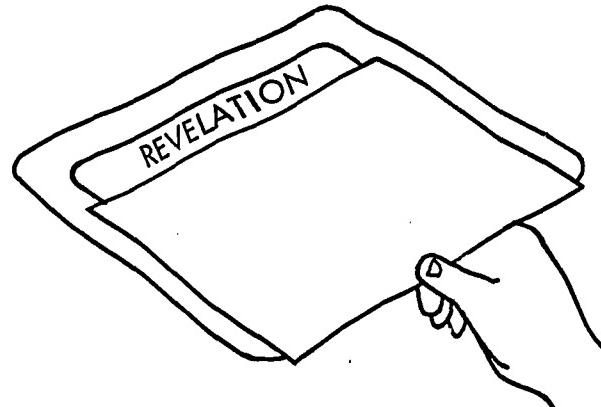


2.

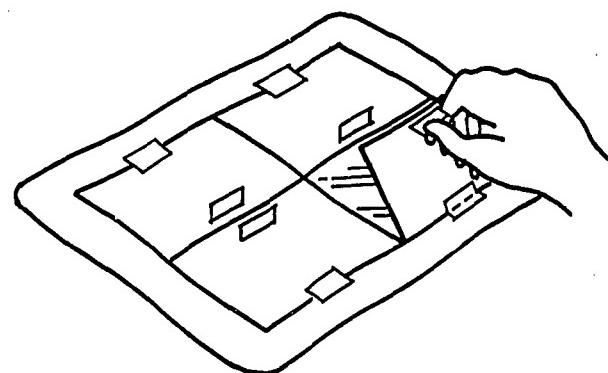


## USING DISCLOSURE MASKS

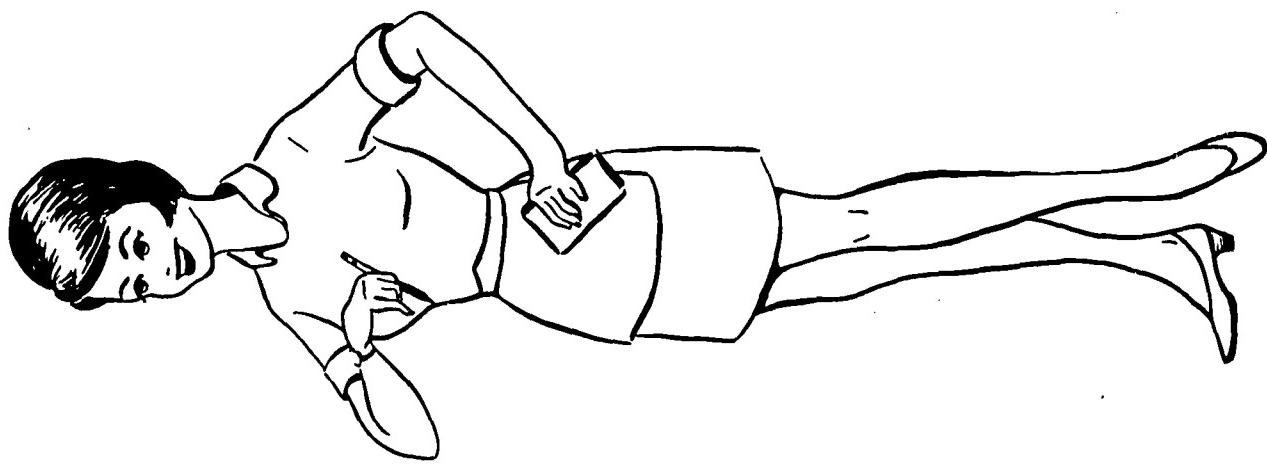
1. SLIDING



2. AREA



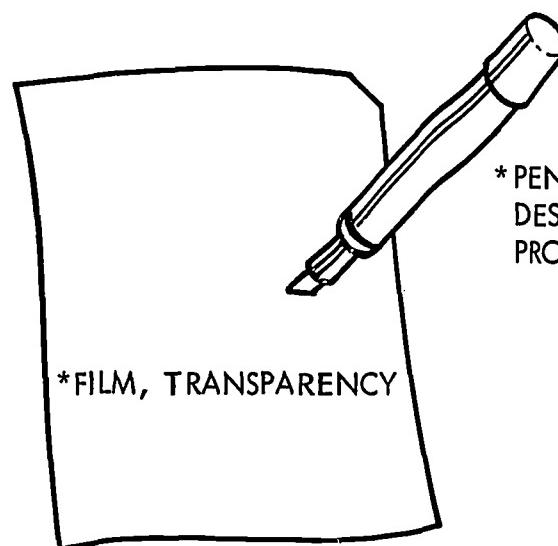
WAITRESS CHECK LIST



SAMPLE BASE TRANSPARENCY

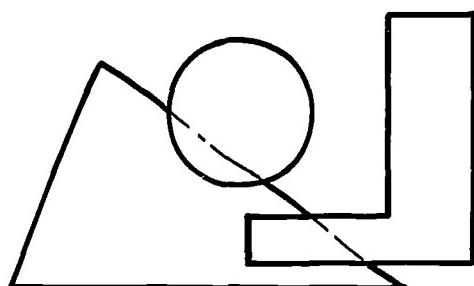


## MATERIALS FOR OVERHEAD PROJECTION

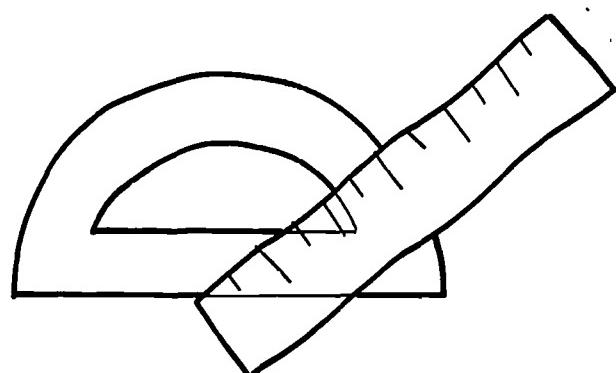


\*PEN, WICK (WATER SOLUBLE,  
DESIGNED FOR OVERHEAD  
PROJECTION, IN COLORS)

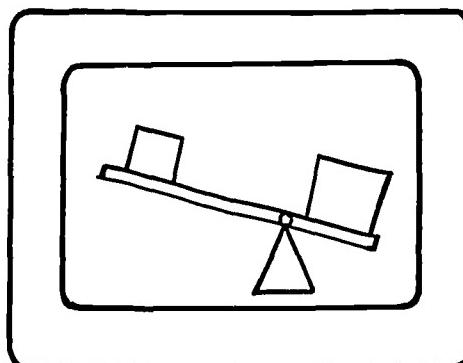
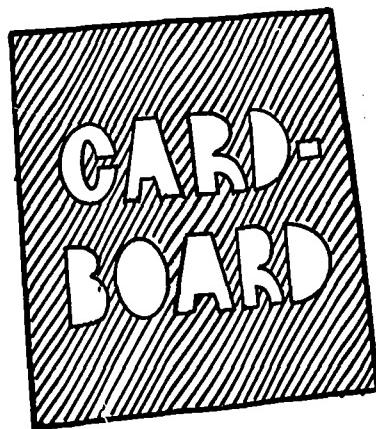
\*FILM, TRANSPARENCY



\*CELLULOSE ACETATE  
(CLEAR, BLUE, GREEN, RED, YELLOW)



PLASTIC INSTRUMENTS



MOVABLE OBJECTS

\*SEE SUPPLY LIST

## CONSIDERATIONS FOR SELECTING OVERHEAD TRANSPARENCIES

By Eugene H. White  
Director of Audio-Visual Services  
Los Angeles City Schools

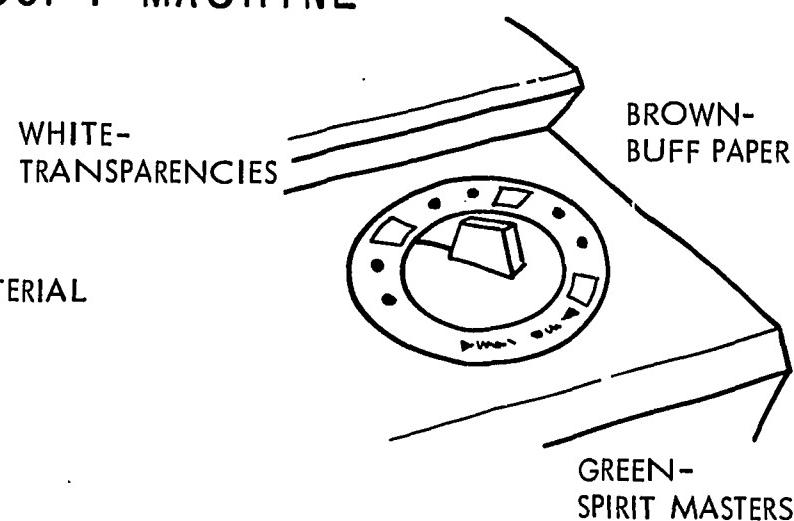
In evaluating commercial overhead transparencies for classroom use, certain criteria are worthy of consideration before a selection is made.

1. Does the content have a direct relationship to curricular need?
2. Are the concepts visualized and verbalized in a manner which will communicate with the intended pupil-audience's maturity and ability levels?
3. Does the material perform a task which cannot easily be performed by the teacher through other media?
4. If color is used, does it add measurably to conceptualization or would communication be just as effective in monochrome?
5. What evidence is there that the content is accurate and well researched?
6. Is the print in a horizontal mode on the transparency whenever possible?
7. What consideration has been given to the size and type face of the text in relation to average pupil distance from the viewing screen?
8. Are abbreviations minimized or avoided?
9. Are captions and labels simple and brief?
10. Are illustrations used in place of text whenever possible?
11. Does a single transparency try to do too much without the employment of overlays to build concepts a step at a time?
12. Is the format designed to encourage teacher and pupil participation in concept building by allowing for such techniques of usage as pointing, underlining, circling with colors, revealing a line or a segment at a time, adding overlays, or writing directly on the acetate to expand ideas?

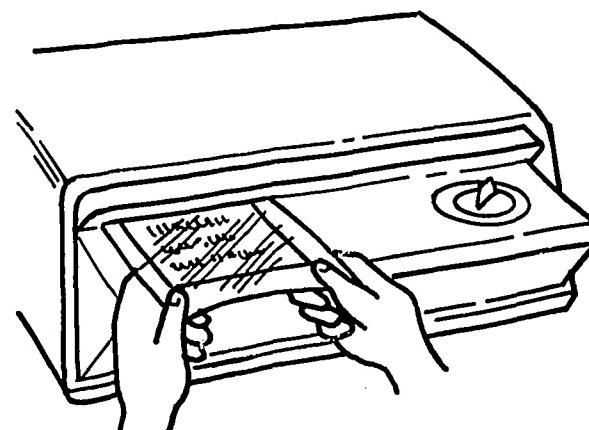
In establishing specific criteria for the evaluation and selection of overhead transparencies for classroom use, determine from the beginning to accept nothing less than the best. Product has already been created in sufficient quantity from a variety of educationally-oriented producers to preclude acceptance of any item merely because "nothing better is available."

# USING THE THERMOFAX SECRETARY COPY MACHINE

1. SET DIAL FOR TYPE OF MATERIAL

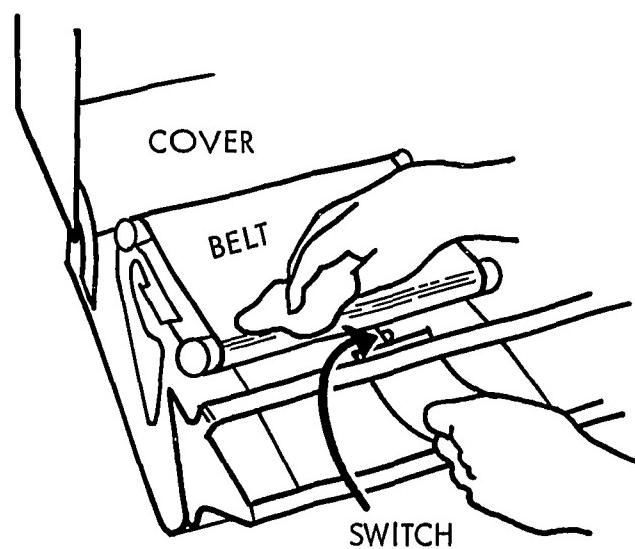


2. FEED IN MATERIAL (USE CARRIER)  
NO STAPLES OR PAPER CLIPS

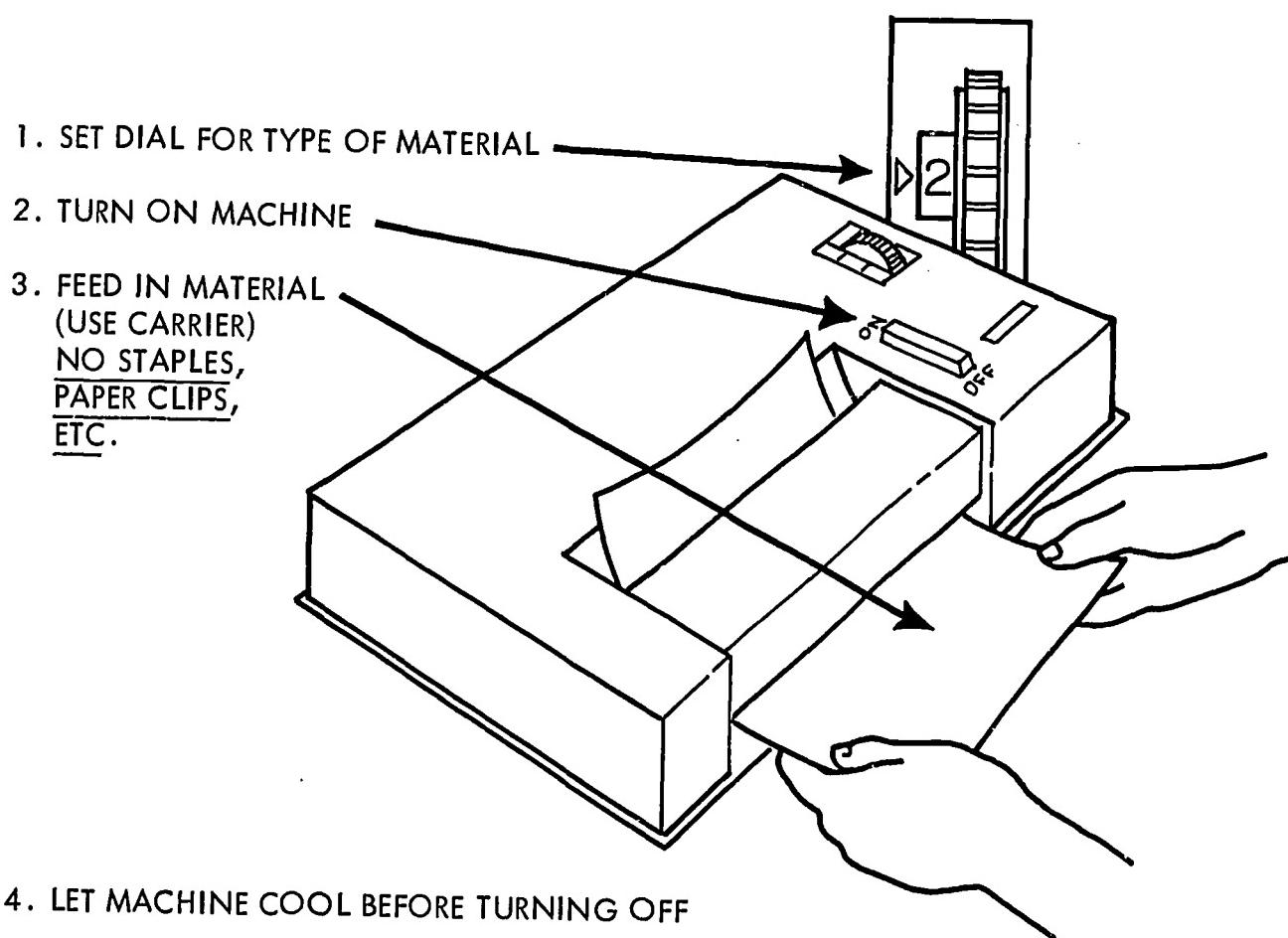


## Cleaning (ONCE A WEEK)

1. OPEN COVER
2. PUSH IN STIFF CARD JUST ENOUGH TO TURN ON SWITCH
3. USE BELT CLEANER AND PAD TO CLEAN BELT

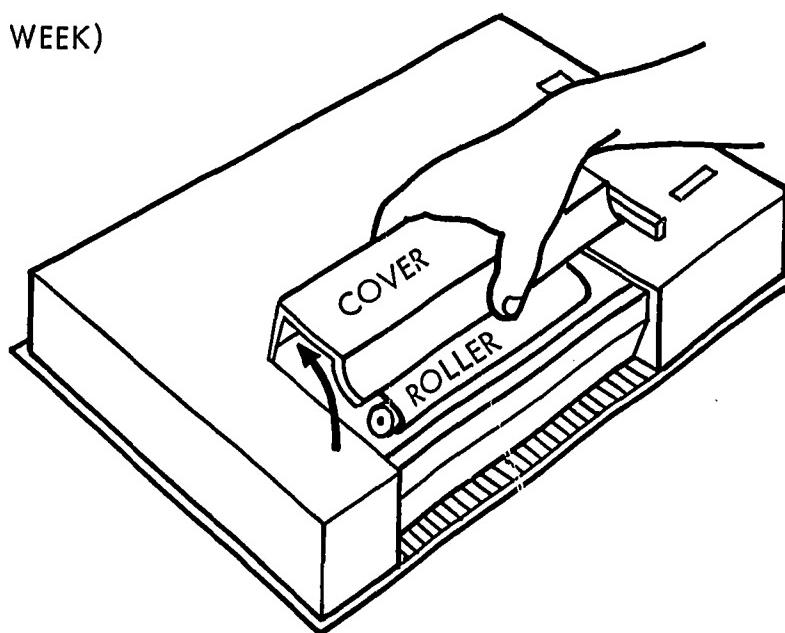


## USING THE ADDO-FAX COPY MACHINE



### Cleaning (ONCE A WEEK)

1. REMOVE COVER
2. CLEAN ROLLER WITH  
BELT CLEANER



## MAKING THERMAL SPIRIT MASTERS ON THE COPY MACHINE

Material to be copied must not be thicker than a double folded sheet in order to pass through the copy machine.

Original must have a high carbon content.

Blue ink will not reproduce. Many work books, etc. are purposely printed this way to prevent reproduction. However, electrostatic copies (Xerox, etc.) of these materials will reproduce.

Ball point pen will not reproduce, except for pens specifically designed for reproduction; however, a photocopy can be made as above.

Felt tipped pens generally will not reproduce.

Some things that will reproduce:

Typewritten copy-preferably on softer paper such as ditto machine paper.

Newspaper and magazine copy.

Mimeo copy.

Drawings, etc. done with india ink.

Lead pencil (No. 2 or softer) -- get good solid lines.

Note: Thermal masters will not faithfully reproduce photographs. They drop out all halftones (shades of gray) and print only those areas that are solid black.

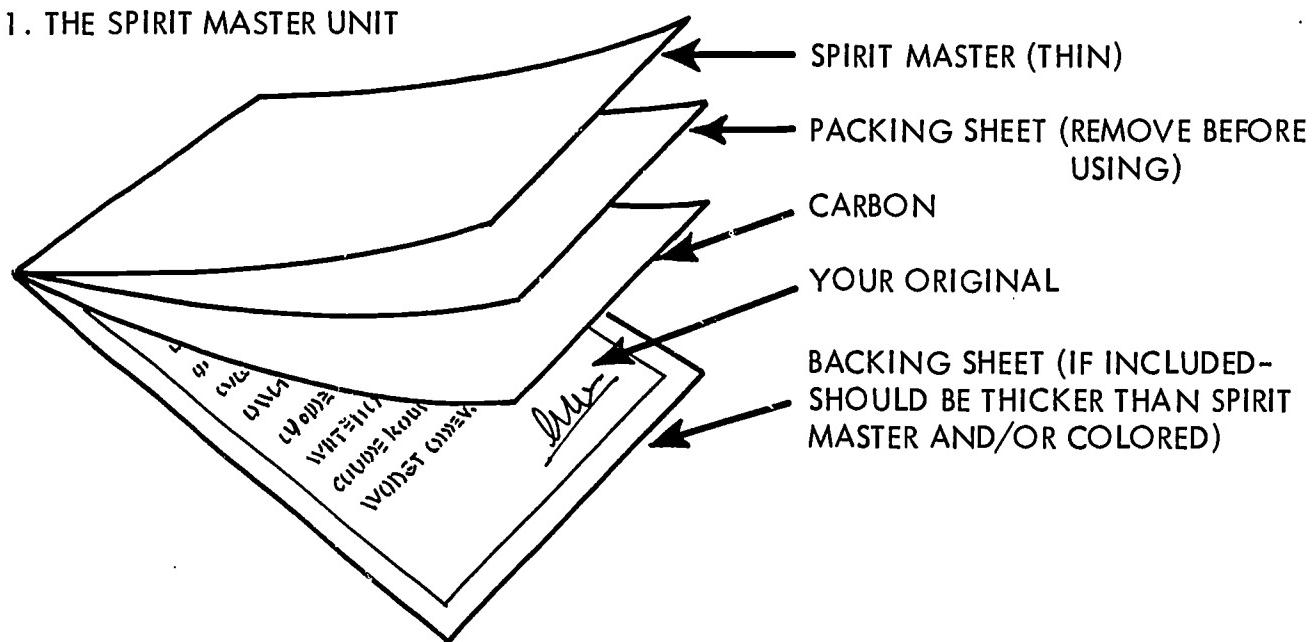
Some time savers:

Diagrams, etc. that won't reproduce can be traced with india ink (or pencil) and the tracing converted to a thermal master.

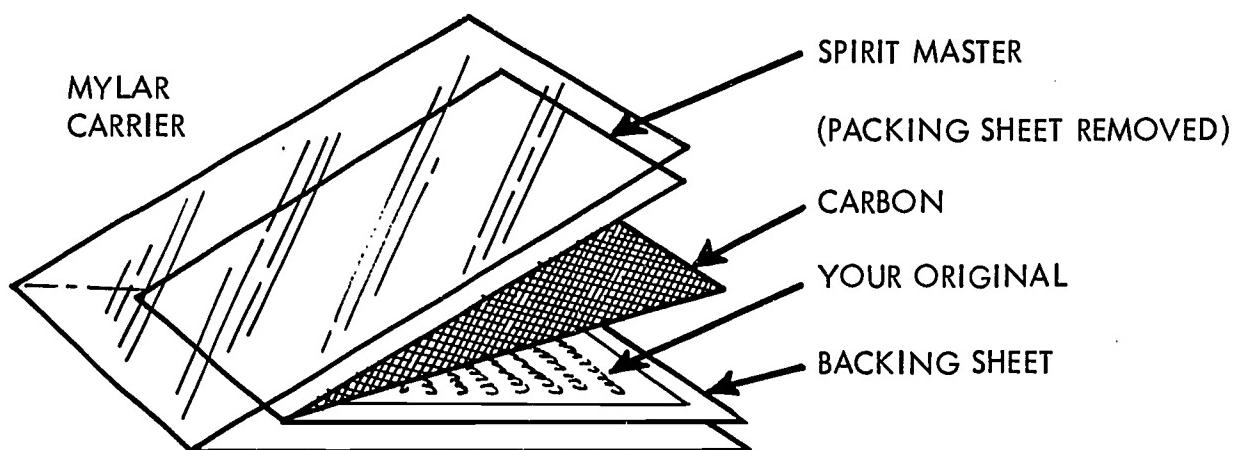
When you type material for reproduction, DON'T use the standard spirit master. Instead, type your material on plain white ditto paper with a backing sheet and a well-inked ribbon. Unlimited thermal masters can be made from your original as long as the information is up to date (you need never type or draw it again).

# MAKING A THERMAL SPIRIT MASTER

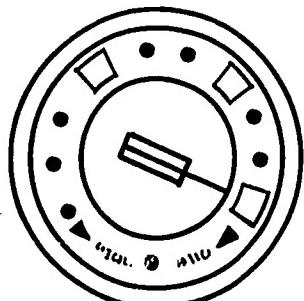
## 1. THE SPIRIT MASTER UNIT



## 2. ALWAYS USE MYLAR (PLASTIC) CARRIER

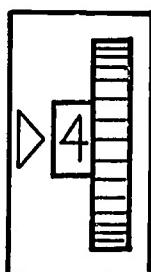


THERMOFAX  
SETTING

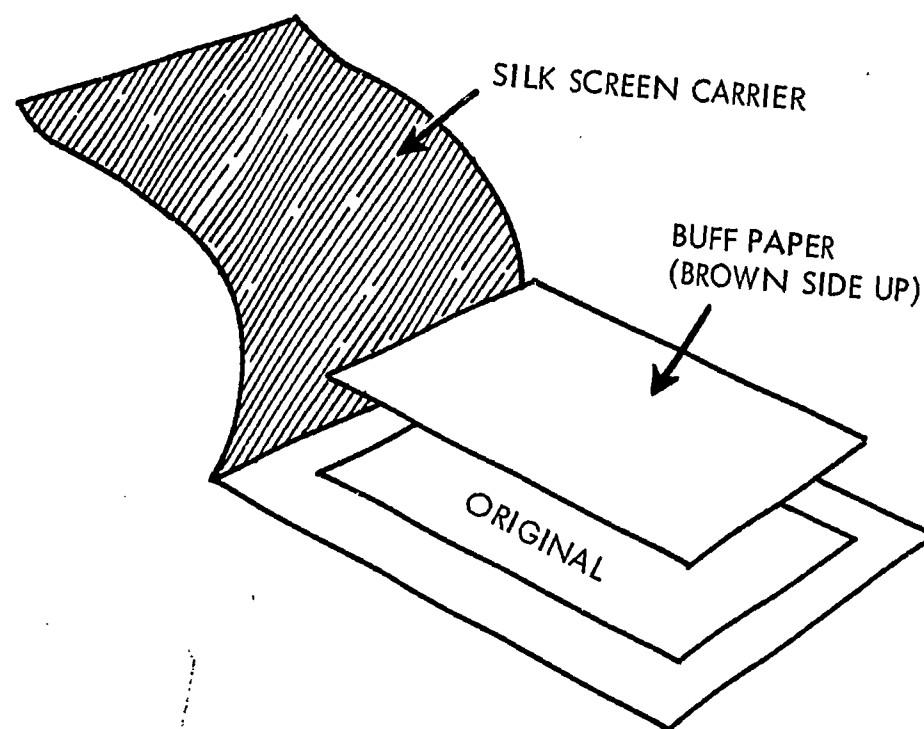


GREEN

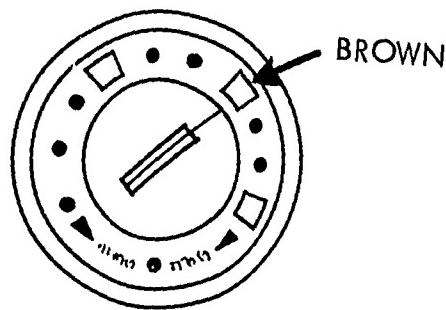
ADDO-FAX  
SETTING



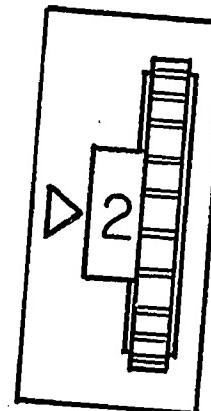
## MAKING A BUFF COPY



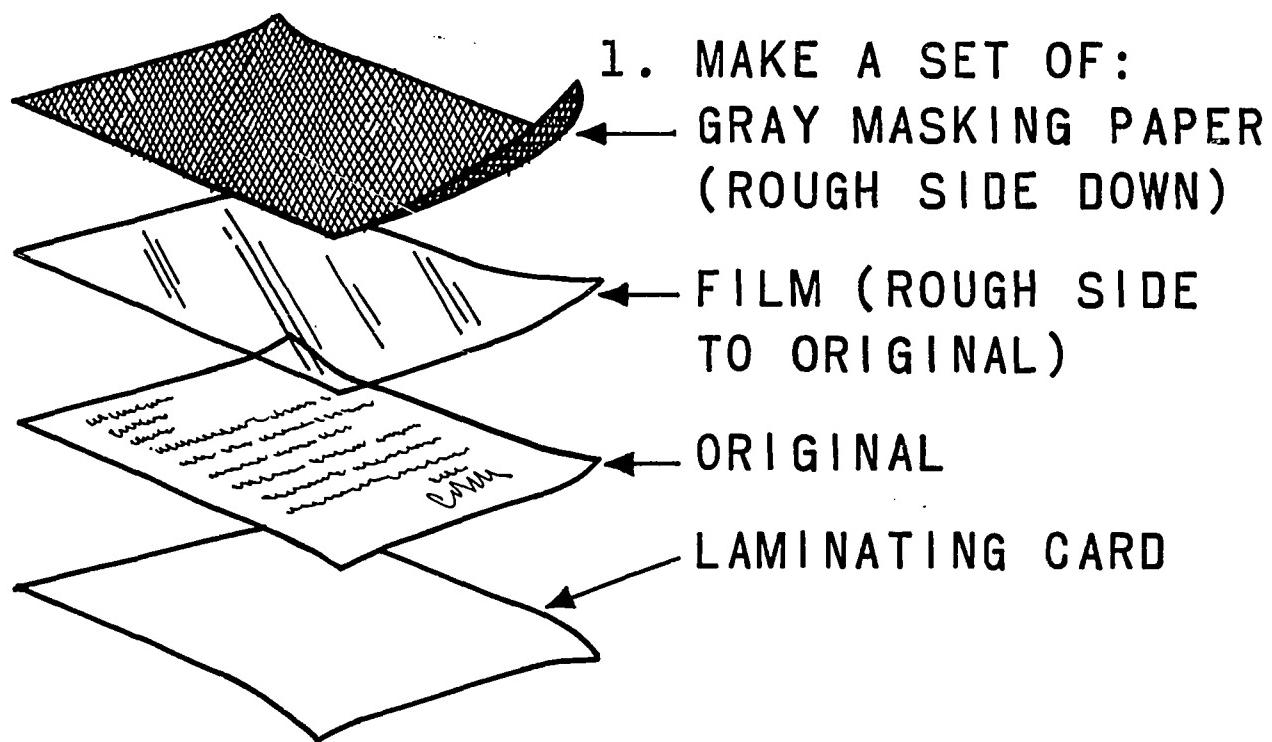
3M  
"SECRETARY"



ADDO-FAX



## LAMINATING (USING THERMO-FAX TYPE 707 LAMINATING FILM)



1. MAKE A SET OF:  
GRAY MASKING PAPER  
(ROUGH SIDE DOWN)
2. SET COPY MACHINE AT DARKEST (SLOWEST)  
SETTING
3. INSERT SET INTO MACHINE, GRAY PAPER  
ON TOP (NO CARRIER)
4. LAMINATE REVERSE SIDE IN SAME WAY